ATP ADVISORY COMMITTEE MEETING

November 30, 2004

Russell Bodoff, Executive Director
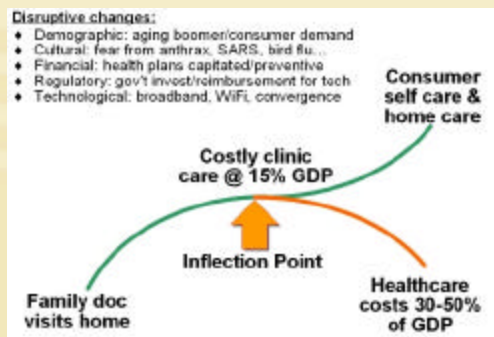Center for Aging and Services Technologies

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Healthcare at an inflection point

"Healthcare's *costs, coverage problems and demographic pressures mean system overload*; it's formal institutions can't cope with the future."
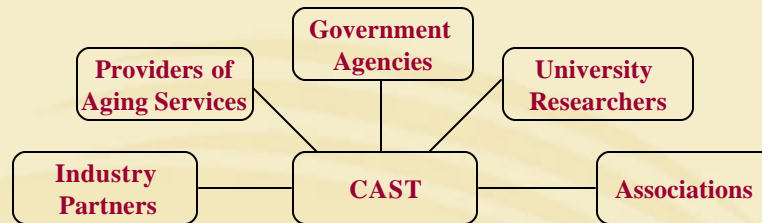
What will ease the pain?

"A major shift, enabled by technology, to self-care, mobile care, home care."

(Forrester Report, Dec 2002)

Disruptive changes:
- Demographic: aging boomer/consumer demand
- Cultural: fear from anthrax, SARS, bird flu...
- Financial: health plans capitated/preventive
- Regulatory: gov't invest/reimbursement for tech
- Technological: broadband, WiFi, convergence

Consumer self care & home care

Costly clinic care @ 15% GDP

Inflection Point

Family doc visits home

Healthcare costs 30-50% of GDP

CAST: Catalyzing the Revolution

Providers of Aging Services

Government Agencies

University Researchers

Industry Partners

CAST

Associations

What Will CAST Do?

- Galvanize the aging services industry to help lead a wellness revolution.
- Advance the vision of the "home of choice".
- Drive the innovation of proven new technologies that allow quality to scale to the age wave.
- Harness collective power and compassion to transform aging services and all of healthcare.

Wake Up Nation to Aging Issues

Put "age wave" preparation on (inter)national agenda

Help create a "National Commission" to drive new technology solutions

Identify and advocate for key "tech policy" issues

Develop a vision for new health care delivery systems

Reimagine What "Healthcare" Is

Move beyond crisis-driven, reactive care to proactive and preventive care.

Shift locus of care from clinic to the home.

Prepare for boomers as very different kind of elder and patient.

Think wellness and expand the continuum to reach consumers at an earlier age.

CAST has 7 task groups

1) Business & Economic Model Task Group
- Co-chairs Tom Plocher (Honeywell) / Craig Lehmann (SUNY)
- Market definition, sizing and new delivery models

2) Evangelizing Vision Task Group
- Chair David Mayne (GE)
- CAST given leadership role in tech event during White House Conf on Aging for Oct 2005
- Development of vision video of future of aging services technologies/paradigms

3) Electronic Health & Wellness Records
- Chair Peter Kress (Acts Retirement Communities)
- Participate in national standards activities

CAST has 7 task groups

4) Funding Aging Services Technologies (FAST)
   - Co-Chairs Majd Alwan (UVA) & Dave Baker (Diakon Services)
   - Help develop funding opportunities for new trials

5) Web Communications Task Group
   - Chair Lisa Gaudet (NE Health)
   - Developed CAST Website & Clearinghouse
   - Will develop grant clearinghouse

6) Needs Research Task Group
   - Co-Chairs Helen Higgins (HP) & Kari Miner (Front Porch)
   - Research and focus groups of "Boomers" technology interest

7) Smart Campus Standards Task Group
   - Chair Philippe Fauchet (Center for Future Health)
   - Task group to be established to identify standardization needs

Reimagine what healthcare is

Wait until senior (or anyone) gets really sick

Force them to make a pilgrimage to a healthcare "mainframe"

Administer numerous, expensive tests on "miracle machines"
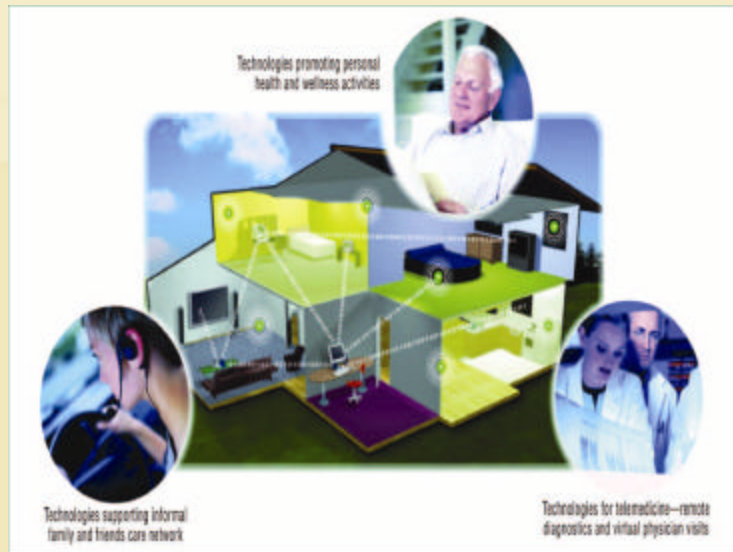
Treat specific problem they came in with

Put them on multiple expensive medications

Send home and hope they do what doctor told them to do

Repeat as needed (paying $1.7T annually in the U.S.)

Technology in and Around the Home

CAST Recommended Areas of Technology Development

- Monitoring & sensor devices
- Communication tools
- Medication dispensing systems
- Tele-health applications
- Work place solutions
- Electronic health & wellness record

Where we've been in 2004…

CAST on the national scene in 2004…

Huge success at putting aging services technologies on national agenda!
- Key meetings: White House, OSTP, Senators, VA, CMS, NIH, NSF…
- Direct influence on NIA & Alz Assoc research funding
- March 16th Tech Demo in Senate Dirksen Building
- April 27th Senate Committee on Aging Hearings
- July 18th CAST keynote to National Gov Assoc / C-Span
- October 12th Special White House/Cabinet invitation to CAST

"It's a testament to what you've accomplished already that I keep hearing CAST on the lips of almost anyone talking about innovative technologies and aging."
- David Brailer,
 Healthcare IT Advisor
 to President Bush

March 16th Senate Tech Demo

- 15 live working demos of prototype technologies
- Offices of over 40 members of Congress represented
- 22 media outlets present
  - Coverage on NBC, CNN, FOX, CNBC, over 200 newspapers,

Tech Demo Exhibitors

Companies

- General Electric
- Hewlett-Packard
- Honeywell
- Intel
- Motorola
- Philips/ Comcast
- Sears Methodist
- Viterion(Bayer/Panasonic)

Universities

- Georgia Tech
- MIT
- Oregon Health & Science/Elite Care
- University of Michigan
- University of Rochester
- University of Virginia
- University of Washington

A Taste of the Showcased Technologies

- *Smart picture frame* that helps track your aging parents' amount of exercise, nutrition, & medication activities.
- *Object tracking system* that helps you remember the last time you took pills out of that particular medicine bottle.
- System that tracks the social health of an early Alzheimer's patient and helps them *remember names & faces* of their key friends & family.
- *Home technology that tracks the ADLs* (activities of daily living) of frail elders based on sensing the everyday artifacts they use.
- *Wearable sensors* and wrist watch technologies that can help people with disabilities to be able to conduct everyday activities such as walking, resting, scrubbing, or vacuuming.
- *Cell phone with wearable heart monitor and other sensors* and a "panic button" that helps people

A Taste of the Showcased Technologies

- *Intelligent bed* that tracks sleep patterns & weight to detect disease and helps prevent falls by turning on and off lights when you get up a night
- *Television based personalized health application* for people with heart problems.
- *Robot* used in long term care facilities to help frail seniors walk more frequently and remember to take their medications
- *Interactive medication coach* on a computerized medicine cabinet that an elder can speak with to determine what medications they should take and when.
- Sensor that *"listens" to your footsteps and walking patterns* for signs that we may be developing a disease such as Parkinson's
- *Smart chair* that automatically monitoring breathing and heart rate on a daily basis.
- Cell phone that serves as an *intelligent navigation assistant* designed to help people with memory problems find their way around town and to using

Senate Special Committee on Aging Hearing
April 27, 2004

Senate Committee Website:

Announcement

- TUESDAY'S HEARING TO EXAMINE AND DEMONSTRATE NEW TECHNOLOGIES TO HELP SENIOR CITIZENS

Conclusion

- NEW TECHNOLOGIES COULD HELP SENIORS AND SAVE TAXPAYERS BILLIONS OF DOLLARS

Draft Vision Video

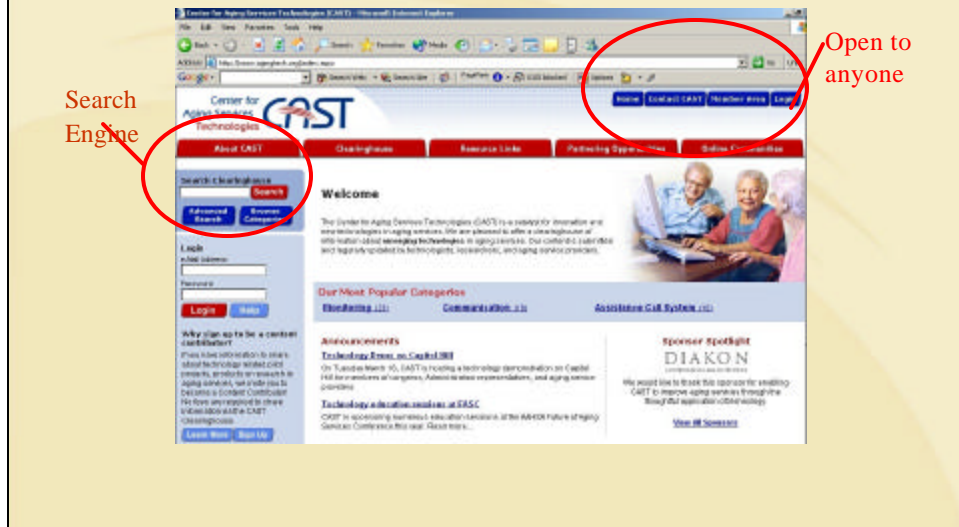## July 18th National Governors Assoc

- CAST presentation to 30 Governors; multiple governors following up on doing pilot tech projects in their home states

- CSPAN and other regional market coverage

- Led to CAST October invitation to address private White House meeting including Cabinet Members

Oct 13-14th White House Forum

- CAST invited with top 100 experts on aging and technology to White House Forum

- Presentation included Cabinet and assistant secretaries, including David Brailer

- 2- day presentation of a White House report on "assistive technologies" targeting VA

- Key issue/challenge: shifting name/perception of assistive technologies to something better; evaluating American competitiveness

CAST website is growing...

Goal: Make CAST website the preeminent place on the web to go to for info on tech research and products for aging services!

Open to anyone

Search Engine

What events to look forward to in 2005?

- AAHSA Futures Conference, Washington, D.C., April 4-6; "A Place Called Home"
- IAHSA Conference, June 2005 in Trondheim, Norway
- **White House Conference on Aging, Oct 2005**
  - Vision video of future of aging services
  - CAST technology pavilion
- AAHSA Annual Meeting, Nov 7-10th, San Antonio

Challenges as we go forward

- Many companies still do not understand the aging market
- Government has not focused on the issue with a single "owner"
- Unlike other countries, the Insurance industry in the U. S. to date (other than LTC Insurance) has not taken up the issue
- LTC providers need to invest and drive trials—Pilot projects are key in 2005!
- Doctors may fight these changes—need to be prepared for this as we move aging services vision forward
- Reshaping definition/reimbursement beyond "assistive technologies"

Policy 2005 Objectives

- **Remove barriers to wireless adoption/deployment in facilities**
  - Analysis of states' challenges / list of regulatory barriers
  - Tech + long term care position paper/policy recommendations
- **Promote broadband internet access/affordability for all seniors**
  - Analysis of barriers & of tech companies broadband positions
  - Advocacy to relevant Congressional committees & agencies
  - Exploration of policy issues surrounding new technologies such as WiMax
  - CAST standards group evaluates relevant standards
- **Revise federal label & definition of "assistive technologies" to include in-home monitoring and other independent living technologies**
  - Develop and propose better terminology
  - Encourage Dept of Commerce to conduct study of this broader market category & evaluate American business competitiveness
  - Advocate for CMS reimbursement of tech in this larger domain
- **Advocate for state/federal R&D funding of 3-5 small tech pilot projects across the continuum of aging**
  - Discussion with CMS around automatic MDS
  - Follow up with governors in NV, MD, NY, OR, etc. on state pilots
  - Discussions with NIA and AOA on including long term care pilots in their funding agenda
  - Work with Research Funding task force (Alwan/Baker)

Thank You…Time for Q & A

www.agingtech.org

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